



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,329	02/01/2001	Yuri J. Breitbart	BREITBART 14-8-1-39	9203
47394	7590	11/17/2004	EXAMINER	
HITT GAINES, PC LUCENT TECHNOLOGIES INC. PO BOX 832570 RICHARDSON, TX 75083			BARQADLE, YASIN M	
			ART UNIT	PAPER NUMBER
			2153	

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/775,329

Applicant(s)

BREITBART ET AL.

Examiner

Yasin M Barqadle

Art Unit

2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**Response to Amendment**

1. Applicant's arguments filed on August 19, 2004 regarding claims 7-21 have been considered and are deemed persuasive. However, they are moot in view of the new ground(s) of rejection.
2. Applicant's arguments filed on August 19, 2004 regarding claims 1-6 have been considered but are not deemed to be persuasive.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1 recites the limitation "said candidate" in lines 6. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.
4. Claim 3 recites the limitation "said candidate" in line 4. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1, 3 and 5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. "...approaches an actual shortest path length between..." Examiner could not find the word actual or its equivalent in the specification.

6. Claim 1, 3 and 5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly

Art Unit: 2153

connected, to make and/or use the invention. "...approaches an actual shortest path length between..." Examiner could not find the word actual or its equivalent in the specification.

### **Response to Arguments**

In response to applicant's argument in page 8, second paragraph that "Hsu does not teach selects at least a subset of said candidate OSPF aggregates such that a selected shortest path length between a particular source and destination subnets resulting from advertisement of a set of weighted aggregates approaches said shortest path length between said particular source and destination subnets irrespective of said advertisement."

Examiner notes that HSU teaches this limitation as explained in the previous action. Particularly, the abstract shows selecting a route for a flow from a plurality of networks paths (OSPF aggregates, see fig. 3 and col.5, lines 28-58) connecting a source to a destination. Further Hsu teaches a cost (weight) of a link which is the product of its static cost from link state advertisement and calculated cost bias factor for each link col. 6, lines 29-65 and col. 10, lines 13-61].

Art Unit: 2153

In response to applicant's argument in page 8, last paragraph that " Hsu does not teach assigning weight to OSPF aggregates based on average distance of subnets in an area for a particular border router (ABR) of the area". Examiner agrees. However, the combined references of Hsu and Rabinovich teach this limitation as explained in claim 7 below. See the rejection on claim 7 below. [See Rabinovich Col. 14, lines 8-33 and col. 19, lines 12 to col. 20, line 10].

In response to applicant's argument in page 9, second paragraph that " Hsu does not does not employ a search heuristic..." Examiner notes that Rabinovich teaches this limitation see for example col. 10, lines 31-65 and col. 15, lines 60 to col. 16, line 22].

### ***Claim Rejections - 35 USC § 102***

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do

Art Unit: 2153

not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by HSU USPN (6363319).

As per claim 1, Hsu teaches a system for selecting open shortest path first (OSPF) aggregates (summary information of network fig. 1c and col. 5, 44-54), comprising:

a database (database 154, Fig. 1D) for containing data pertaining to candidate OSPF aggregates and corresponding weights (link cost) [fig. 1C and col. 4, 38-45 and col. 5, 44-54]; and

an aggregate selector (fig. 1c BCRS 115C), associated with said database, that selects at least a subset of said candidate OSPF aggregates such that a selected shortest path length between a particular source and destination subnets (col. 4, lines 1-17 and col. 5, lines 44-52) resulting from advertisement of a set of weighted aggregates approaches said shortest path length between said particular source and destination subnets

Art Unit: 2153

irrespective of said advertisement [ the cost (weight) of a link is the product of its static cost from link state advertisement and calculated cost bias factor of for each link col. 6, lines 29-65 and col. 10, lines 13-61].

As per claim 2, Hsu teaches the system as recited in claim 1 wherein said aggregate selector treats errors in said shortest path length as having unequal degrees of importance [col. 7, lines 36-55 and col. 11, lines 25-61].

As per claim 3, Hsu teaches a method of selecting open shortest path first (OSPF) aggregates (summary information of network fig. 1c and col. 5, 44-54), comprising:

storing data pertaining to candidate OSPF aggregates and corresponding weights (link cost) (col. 4, lines 33-45 and col. 5, 44-54); and

selecting at least a subset of said OSPF aggregates (summary information of network fig. 1c) such that said shortest path length between said particular source and destination subnets (col. 4, lines 1-17 and col. 5, lines 44-52) resulting from advertisement of a set of weighted aggregates approaches said shortest path length between said particular source and destination subnets irrespective of said advertisement [the cost



Art Unit: 2153

(weight) of a link is the product of its static cost from link state advertisement and calculated cost bias factor of for each link col. 3, lines 15-20; col. 6, lines 29-65 and col. 10, lines 13-61].

As per claim 4, Hsu teaches the method as recited in claim 3 wherein said selecting comprises treating errors in said shortest path length as having unequal degrees of importance [col. 7, lines 36-55 and col. 11, lines 25-58. see also col. 12, lines 31-39].

As per claim 5, Hsu teaches an autonomous network domain (fig. 1c and col. 10, lines 22-41)), comprising:

plurality of routers and interconnecting segments that cooperate to form subnets and paths there between (see fig. 1C); and a system for selecting open shortest path first (OSPF) aggregates including:

a database (database 154, fig. 1D) for containing data pertaining to candidate OSPF aggregates and corresponding weights (link cost) (col. 4, lines 1-17), and an aggregate selector (fig. 1C, BCRC 115 C), associated with said database, that selects at least a subset of said OSPF aggregates such that said shortest path length between said particular source and

Art Unit: 2153

destination subnets (col. 4, lines 6-17 and col. 5, lines 44-52) resulting from advertisement of a set of weighted aggregates approaches said shortest path length between said particular source and destination subnets irrespective of said advertisement [the cost (weight) of a link is the product of its static cost from link state advertisement and calculated cost bias factor of for each link col. 3, lines 15-20; col. 6, lines 29-65 and col. 10, lines 13-61].

As per claim 6, Hsu teaches the domain as recited in claim 5 wherein said aggregate selector treats errors in said shortest path length as having unequal degrees of importance [col. 7, lines 36-55 and col. 11, lines 25-58. see also col. 12, lines 31-39].

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the

Art Unit: 2153

art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 7-21 rejected under 35 U.S.C. 103(a) as being unpatentable over HSU USPN (6363319) in view Rabinovich USPN. (6256675).

As per claims 7, 12 and 17, Hsu teaches a system for selecting open shortest path first (OSPF) aggregate weights (link cost) for a particular area (fig. 1C area 102), comprising:

a database for containing data pertaining to candidate OSPF aggregates [col. 4, 38-45 and col. 5, 44-54]; and

a weight assigner, associated with said database, that assigns, for said OSPF aggregates, weights for an area particular area border router (ABR) of said area [col. 5, lines 44-63 and col. 6, line 30-61. see also col. 10, lines 13-61].

Although HSU shows substantial features of the claimed invention as explained in claims 7, 12 and 17 including a cost (weight) for links, he does not explicitly show weights based on average distance of subnets in an area.

Nonetheless, this feature is well known in the art and would have been an obvious modification of the system disclosed by HSU, as evidenced by Rabinovich USPN. (6256675).

Art Unit: 2153

In analogous art, Rabinovich whose invention is about a system for allocating requests for objects in a routed network using protocols such OSPF and BGP, disclose autonomous system with preference path based on average distance of subnets in an area (autonomous system areas) [Col. 14, lines 8-33 and col. 19, lines 12 to col. 20, line 10]. Giving the teaching of Rabinovich, a person of ordinary skill in the art would have readily recognized the desirability and the advantage of modifying HSU by employing the system of Rabinovich for the benefit of routing data packets destined to remote hosts on the closest and shortest path.

As per claims 8,13 and 18, Rabinovich teaches the invention wherein said weight assigner employs a search heuristic to assign said weights [col. 10, lines 31-65 and col. 15, lines 60 to col. 16, line 22].

As per claims 9,11,14,16,19 and 21, Hsu teaches the invention wherein said weight assigner treats errors in path lengths in said area as having unequal degrees of importance [col. 7, lines 36-55 and col. 11, lines 25-61].

As per claims 10,15 and 20, these claims include similar

Art Unit: 2153

limitations addressed in claims 7 and 8. Therefore, they are rejected with the same rationale.

### Conclusion

9. The prior made of record and not relied upon is considered pertinent to applicant's disclosure.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yasin Barqadle whose telephone number is 703-305-5971. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 703-305-4792. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Yasin Barqadle

Art Unit 2153

  
GLENN B. BURGESS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

Application/Control Number: 09/775,329  
Art Unit: 2153

Page 13